STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

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REPLY TO:

STORAGE TANK DIVISION
TOWN CENTER
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LANSING MI 48909-7657

IM-14

September 29, 1998

TO: Storage Tank Owners/Operators and Interested Parties

FROM: Amy S. Carter, Chief, Program Support Section

SUBJECT: Storage of Liquefied Petroleum Gases

This informational memorandum has been prepared to identify and clarify some of the requirements for the storage of liquefied petroleum gases such as propane, propylene, butane and butylene. These substances are normally stored under pressure. The Storage and Handling of Liquefied Petroleum Gases (LPG) Rules, were promulgated under the authority of the Michigan Fire Prevention Code, 1941 PA 207, as amended, being R 29.3801 et seq., of the Michigan Administrative Code. Rule R 29.3801 of the LPG Rules adopts by reference the National Fire Protection Association (NFPA) Standard 58, 1983 Edition, entitled "Standard for the Storage and Handling of Liquefied Petroleum Gases," including appendices D and H, with specific additions and amendments.

Plan Review and Certification. When required, the review of liquefied petroleum gases storage container systems require the owner or installer to submit plans and specifications on the Installation of Liquefied Petroleum Gas Facilities, Form No. EQP3861, in compliance with Section 1-5.1.1 of the LPG Rules. This must be done at least ten days prior to the intended utilization of the liquefied petroleum gases storage container system. All system components and appurtenances must be reported on this form which is provided by the Storage Tank Division (STD), and must include a site plan submitted by the installer.

A plan review report is issued within ten days of the receipt of the installation application. Upon receipt of the plans and a copy of the installation application form, the local Hazardous Material Storage Inspector (HMSI) will arrange for a preliminary site inspection and, upon installation, the installer will arrange for a final inspection. When the installation is approved, the HMSI will certify the storage container system as ready to be placed in-service.

Storage: Although liquefied petroleum gases are stored in many different types of containers, under differing temperatures and pressures, and for many different types of

applications, the LPG Rules regulate all types of storage facilities. Section 29.5c of Act 207 requires a person to obtain a plan review and certification for the following types of facilities:

I. Dispensing facilities

II. Container filling locations

III. Non-dispensing facilities

All new installations require the submittal of plans and specifications submitted on the Application for Installation of Liquefied Petroleum Gas Facilities, Form No. EQP3861, with inspection and certification by the Department of Environmental Quality, STD. An installation application fee of $203.00 per container includes the first annual storage container fee. The annual storage container fee is $61.50 per container and is due in accordance with the regular billing cycle. The storage container systems are field inspected before and after installation and upon approval are certified. These storage container systems are also inspected at least once every three years.

Each of the above listed facilities are discussed briefly as follows:

I. Dispensing Facilities. These are storage container systems that are used to dispense liquefied petroleum gases into motor vehicles. These systems also cover dispensing into the storage containers for motor homes and other recreational vehicles, driving of these vehicles, or for other uses such as energy sources for appliances used for heating and lighting. All dispensing facilities, regardless of the size or capacity of the storage container used, require an installation application, a field inspection before and after the installation, certification by the STD, and the payment of fees as discussed above.

II. Container Filling Locations. These locations are usually at the liquefied petroleum gases distributor facility or at a warehousing or industrial facility where liquefied petroleum gases are used to fill fork lifts, mobile cranes, and other equipment cylinders. The filling of these cylinder cans is accomplished by either filling by weight or by volume, and therefore, require having either a scale or proper metering equipment for filling of the containers. Proper storage and handling of both the filled containers and those that are returned for filling or that are awaiting filling is extremely important. This is due to the fact that these containers are usually filled with flammable vapors when they are presumed to be empty. Like dispensing facilities, these facilities require an installation application, field inspections, and certification by the STD. They also require the payment of fees as discussed above.

III. Non-Dispensing Facilities. These facilities consist of storage systems that supply liquefied petroleum gases for domestic use in single homes, industrial or commercial buildings, mobile home parks, subdivisions, or bulk storage systems at industrial

facilities and redistribution locations. Only the storage container systems with more than 2,000 gallons individual water capacity or 4,000 gallons aggregate water capacity require an installation application, field inspections, and certification by the STD. These facilities also require the payment of fees as discussed above. Non-dispensing facilities that have less than 2,000 gallons individual water capacity or less than 4,000 gallons aggregate water capacity must comply with the requirements of the LPG Rules, but they do not require an installation application, inspections, or certification by the STD.

Careful identification of the applicable rules is very important to the safe and proper installation of all liquefied petroleum gases storage container systems. All electrical wiring must be performed by a certified electrician.

Should you require further information, please contact the Technical Review Unit, at 517-373-8168.

cc: Mr. Arthur Nash, DEQ
Mr. Mohammad Yusaf, DEQ
Ms. Andrea Zajac, DEQ
STD District Supervisors, DEQ